

Amendments to the Claims

1. (currently amended) A transceiver system for use in a telecommunication system, said transceiver system comprising:

a transmission circuit including a transmitter input coupled to an input of a transmission amplifier;

a receiver circuit including a receiver output coupled to an output of a receiver amplifier; ~~and~~

a transmission line interface circuit coupled to an output of said transmission amplifier and to an input of said receiver amplifier, said transmission line interface circuit including a matching impedance and first and second primary transformer windings such that said matching impedance is coupled to a first output of said transmission amplifier via said first primary transformer winding at one end of said matching impedance and is coupled to a second output of said transmission amplifier via said second primary transformer winding at a second end of said matching impedance, and that terminates the transmission line of said transceiver system;

a first pair of negative feedback paths to said transmission amplifier, one of said first negative feedback paths extending from a first side of said first primary transformer winding, and another of said first negative feedback paths extending from a first side of said second primary transformer winding; and

a second pair of negative feedback paths to said transmission amplifier, one of said second negative feedback paths extending from a second side of said first primary transformer winding, and another of said second negative feedback paths extending from a second side of said second primary transformer winding.

2. (previously presented) The system as claimed in claim 1, wherein said transmission line interface circuit further includes a secondary transformer winding.

3. (original) The system as claimed in claim 1, wherein said transmission circuit provides a first order high pass filter function.

4. (currently amended) A transceiver system for use in a telecommunication system, said transceiver system comprising:

a transmission circuit including a differential transmitter input coupled to a differential input of a transmission amplifier;

a receiver circuit including a differential receiver output coupled to a differential output of a receiver amplifier; ~~and~~

a transmission line interface circuit coupled to a differential output of said transmission amplifier and to a differential input of said receiver amplifier, said transmission line interface circuit including a single impedance matching network that terminates the transmission line of said transceiver system and is coupled at either end thereof to said differential output of said transmission amplifier via two primary transformer windings

a first pair of negative feedback paths to said transmission amplifier, one of said first negative feedback paths extending from a first side of said first primary transformer winding, and another of said first negative feedback paths extending from a first side of said second primary transformer winding; and

a second pair of negative feedback paths to said transmission amplifier, one of said second negative feedback paths extending from a second side of said first primary

transformer winding, and another of said second negative feedback paths extending from a second side of said second primary transformer winding.

5. (previously presented) The system as claimed in claim 4, wherein said two primary transformer windings are each directly coupled to an output of said transmission amplifier and are each directly coupled to said matching impedance.

6. (original) The system as claimed in claim 4, wherein said transmission circuit provides a first order high pass filter function.

7 (currently amended) A line driver circuit for use in a transceiver system, said circuit comprising:

a transmission line interface circuit that is coupled to an output of a transmission amplifier and to an input of a receiver amplifier, said transmission line interface including a single impedance matching network that terminates a transmission line of the transceiver system and is interposed in series between a first primary transformer winding and a second primary transformer winding;

a first pair of negative feedback paths to said transmission amplifier, one of said first negative feedback paths extending from a first side of said first primary transformer winding, and another of said first negative feedback paths extending from a first side of said second primary transformer winding; and

a second pair of negative feedback paths to said transmission amplifier, one of said second negative feedback paths extending from a second side of said first primary transformer winding, and another of said second negative feedback paths extending from a

second side of said second primary transformer winding.

8. (currently amended) A transceiver system for use in a telecommunication system, said transceiver system comprising:

a transmission circuit including a differential transmitter input coupled to a differential input of a transmission amplifier;

a receiver circuit including a differential receiver output coupled to a differential output of a receiver amplifier; ~~and~~

a transmission line interface circuit coupled to a differential output of said transmission amplifier and to an differential input of said receiver amplifier, said transmission line interface circuit including a matching impedance that is coupled to a first negative feedback path of said transmission amplifier and a pair of primary transformer windings, each of which is coupled to said matching impedance and to an output of said transmission amplifier, and that terminates the transmission line of said transceiver system

a first pair of negative feedback paths to said transmission amplifier, one of said first negative feedback paths extending from a first side of said first primary transformer winding, and another of said first negative feedback paths extending from a first side of said second primary transformer winding; and

a second pair of negative feedback paths to said transmission amplifier, one of said second negative feedback paths extending from a second side of said first primary transformer winding, and another of said second negative feedback paths extending from a second side of said second primary transformer winding.

9-10. (cancelled)

11. (previously presented) The system as claimed in claim 1, wherein said first primary transformer winding is directly coupled to said first output of said transmission amplifier and is directly coupled to said matching impedance, and said second primary transformer winding is directed to said second output of said transmission amplifier and is directly coupled to said matching impedance.

12-15. (cancelled)

16. (previously presented) The system as claimed in claim 4, wherein said transmission line interface circuit further includes a secondary transformer winding.

17-18. (cancelled)

19. (previously presented) The system as claimed in claim 7, wherein said transmission line interface circuit further includes a secondary transformer winding.

20. (previously presented) The system as claimed in claim 8, wherein said transmission line interface circuit further includes a secondary transformer winding.